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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,131	11/13/2003	Mirko Lehmann	SMB-PT036 (PC 00 320 H US	5548
3624	7590	10/09/2007	EXAMINER	
VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			BEISNER, WILLIAM H	
			ART UNIT	PAPER NUMBER
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			10/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/009,131

Applicant(s)

LEHMANN ET AL.

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 16 is objected to because of the following informalities: Claim 16 depends from itself. It appears that claim 16 should depend from claim 15. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 9, "the receptacle" lacks antecedent basis. Note the claim previously recites "a receptor". Clarification and/or correction is requested. Claims 2-25 are indefinite based on their dependency from indefinite claim 1.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1-3, 6, 8, 10, 14, 20, 22, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Whitehead et al.(US 4,879,097).

With respect to claim 1, the reference of Whitehead et al. discloses a device (See Figures 8 and 9) that is structurally capable of carrying out of investigations on living cells, cell cultures and for detection of metabolic activity of the cells, which are located in a liquid medium, the device comprising at least a receptor (16) for liquid medium along with the cell culture, and wherein one or more measuring apparatuses and/or sensors (12) for measurement of the cell culture are provided and wherein a movable separating element (129) is provided, which confiningly borders a reaction space, the separating element (129) is capable of being placed in a measurement position, closely above a cell culture on a bottom of the receptacle to separate a reaction space from a reservoir space wherein a volume of the reservoir space is an order of magnitude greater than a volume of the reaction space (Note when element (132) of the separating element (129) is positioned in well (16) a reaction space will exist below element (132) and a reservoir space will exist above element (132)), and the separating element (129) is movable through one of an essentially vertical up and down motion, from a bottom proximal location, which covers the cell culture and serves as the measurement position, and a bottom distal position, in at least which position (See Figure 8 and column 9, lines 23-66), the reservoir is in fluid communication with the reaction space (between outer surface of element (132) and the sidewall of the well (16), or a forward and back, lateral motion between the measurement position and a position in which the reaction space is in fluid communication with the reservoir. Note the separation element (129) is structurally capable of being positioned in any vertical

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position within the well. Statements of intended use carry no patentable weight in apparatus-type claims.

With respect to claim 2, the separation element (129) is structurally capable of being positioned in any vertical position within the well. Statements of intended use carry no patentable weight in apparatus-type claims.

With respect to claim 3, the sensor (12) is positioned on the bottom of the receptacle (16) and three-dimensional contouring forms a plurality of wells (16).

With respect to claim 6, the sensor (12) is placed in the area of the reaction space.

With respect to claim 8, element (132) of separation element (129) forms a cover bordering the lower chamber.

With respect to claim 10, the vertical distance of the separation element (129) is adjustable with respect to the bottom of the well (16) (See column 9, lines 23-66).

With respect to claim 14, the bottom surface of element (132) is curved or contoured.

With respect to claim 20, sensors can be provided on elements (129) (See column 9, lines 60-66).

With respect to claim 22, in the absence of specifically reciting a material, the separation element (129, 132) is made of a smooth, cell rejecting, inert and easily sterilized material.

With respect to claim 23, the bottom of the well (16) is optically transparent (See column 10, lines 60-67).

With respect to claim 24, the receptacle comprises a plurality of receptacles (16) and comprise multiwell plates (See microplate (17)).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 3, 4 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehead et al.(US 4,879,097) in view of Wolf et al.(US 6,376,233).

The reference of Whitehead et al. has been discussed above.

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With respect to the construction of the bottom of the receptacle device required of claims 3, 4 and 19, the reference of Wolf et al. discloses that it is conventional in the art to construct a culture well with a plurality of recesses that include a multiplicity of sensors (See Figure 1).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to employ the receptacle device of the reference of Wolf et al. with a separator design disclosed by the primary reference for the known and expected of providing an art recognized means for contacting the reaction area of the device with a measuring or sensing device as is required of the primary reference of Whitehead et al.

Allowable Subject Matter

10. Claims 5, 7, 9, 11-13, 15-18, 21 and 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 5, 7, 9, 11-13, 15, 16, 18 and 21, these claims would be allowable because the prior art of record fails to teach or fairly suggest that the device encompassed by the language of claim 1 further include flow channels provided in fluid communication with the reservoir space and reaction space defined by the separation element.

With respect to claims 17 and 25, these claims would be allowable because the prior art of record fails to teach or fairly suggest that the device encompassed by the language of claim 1

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further include coupling or fitting positioned on the separating element for connecting with a pipette, a pipette tip or a dispenser channel.

Response to Arguments

12. Applicant's arguments, see pages 9-10, filed 7/5/2007, with respect to the rejection(s) of claim(s) 1-25 under 35 USC 102(a) and 103 over the reference of Modlin et al. (WO 00/05336) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Whitehead et al.(US 4,879,097).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys J. Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Beisner/
Primary Examiner
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WHB